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(71) Applicant *(for all designated States except US)*: **KONINKLIJKE PHILIPS ELECTRONICS, N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **GOFF, Lonnie** [US/US]; 1109 McKay Drive, M/S-SJ41, San Jose, CA 95131-1706 (US). **MANGUIA, Gabriel** [US/US]; 1109 McKay Drive, M/S-41SJ, San Jose, CA 95131 (US). **LOGSDON, Brian** [US/US]; 1109 McKay Drive, M/S-41SJ, San Jose, CA 95131 (US).

(74) Common Representative: **KONINKLIJKE PHILIPS ELECTRONICS, N.V.**; c/o Shannon Lester, 1109 McKay Drive, M/S-SJ41, San Jose, CA 95131-1706 (US).

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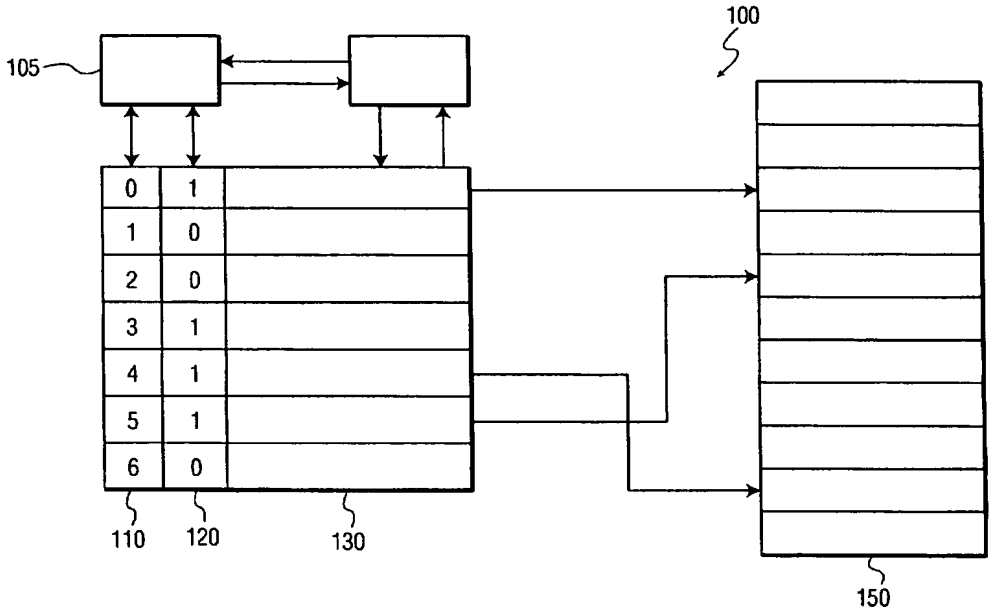
(54) Title: HARDWARE REGISTER ACCESS VIA TASK TAG ID



(57) Abstract: A computer-based software task management system (100) includes an index register (130) configured to store a data register pointer for pointing to a data register (150). A Task ID register (110) is coupled to the index register and configured to store a Task ID keyed to the index register. A Task ID memory (120) is coupled to the Task ID register and configured to store a flag indicating whether the Task ID is available. A state machine (105) is coupled to the Task ID memory and configured to allocate Task IDs on an available basis using a Task ID memory. Advantages of the invention include the ability to efficiently manage a multithreaded operating system with virtually no additional software overhead.

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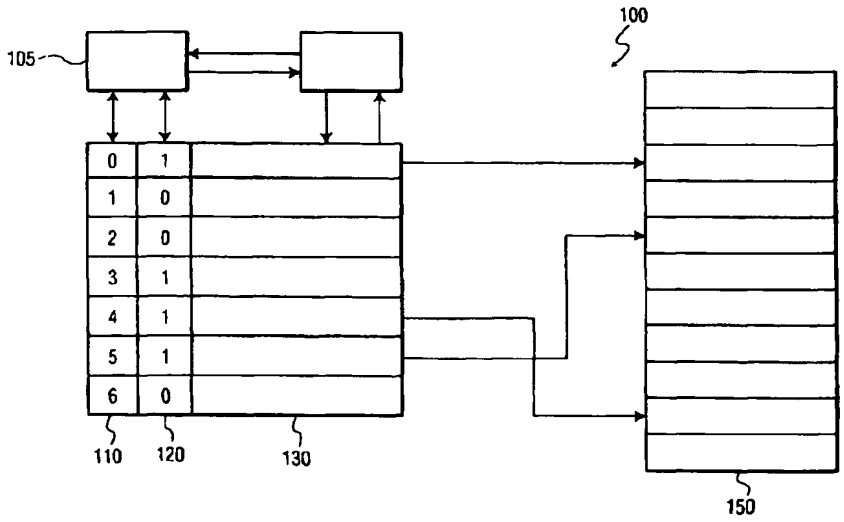

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